Contents

Aicher B, see Elepfandt A, et al. 255
Allen EE, Fernald RD: Spectral sensitivity of the African cichlid fish, *Haplochromis burtoni* 247
Ammermüller J, Weiler R: S-neurons and not L-neurons are the source of GABAergic action in the ocellar retina 779
Ampleford EJ: Ecdysteroids influence the circadian system timing ecdysis in the insect *Rhodnius prolixus* (Hemiptera) 699
Atwood HL, see Pahapill PA, et al. 461
Barth FG, see Blickhan R 115
Bell CC, see Slesinger P 15
Berlind A: Endogenous burst-organizing potentials in two classes of neurons in the lobster cardiac ganglion respond differently to alterations in divalent ion concentration 845
Betz M, see Vater M, et al. 671
Bitterman ME, see Walker MM 67
Blest AD: Retinal mosaics of the principal eyes of jumping spiders (Salticidae) in some neotropical habitats: optical trade-offs between sizes and habitat illuminances 391
Blickhan R, Barth FG: Strains in the exoskeleton of spiders 115
Boppré M, Schneider D: Pyrrolizidine alkaloids quantitatively regulate both scent organ morphogenesis and pheromone biosynthesis in male *Creatonotos* moths (Lepidoptera: Arctiidae) 569
Borbély AA, see Tobler I 817
Bräunig P, Hustert R: Actions and interactions of proprioceptors of the locust hind leg coxo-trochanteral joint. I. Afferent responses in relation to joint position and movement 73
Bräunig P, Hustert R: Actions and interactions of proprioceptors of the locust hind leg coxo-trochanteral joint. II. Influence on the motor system 83
Breckow J, Sippel M: Mechanics of the transduction of sound in the tympanal organ of adults and larvae of locusts 619
Breer H, Heilgenberg H: Neurochemistry of GABAergic activities in the central nervous system of *Locusta migratoria* 343
Brenowitz EA, see Rose GJ, et al. 763
Brownell PH, see Ligman SH 31
Brunner M, see Koch UT 823
Buiatti M, see Scapini F 433
Calford MB, Wise LZ, Pettigrew JD: Coding of sound location and frequency in the auditory midbrain of diurnal birds of prey, families Accipitridae and Falconidae 149
Capranica RR, see Rose GJ, et al. 763
Chang S-B, see Kirschvink JL, et al. 375
Crescitelli F, McFall-Ngai M, Horwitz J: The visual pigment sensitivity hypothesis: further evidence from fishes of varying habitats 323
Distel H, Hudson R: The contribution of the olfactory and tactile modalities to the nipple-search behaviour of newborn rabbits 599
Dizon AE, see Kirschvink JL, et al. 375
Doherty JA: Phonotaxis in cricket, *Gryllus bimaculatus* DeGeer: comparisons of choice and no-choice paradigms 279
Doolan JM, Pollack GS: Phonotactic specificity of the cricket *Teleogryllus oceanicus*: intensity-dependent selectivity for temporal parameters of the stimulus 223
Dyer FC: Mechanisms of dance orientation in the Asian honey bee *Apis florea* L. 183
Elepfandt A, Seiler B, Aicher B: Water wave frequency discrimination in the clawed frog, *Xenopus laevis* 255
Ewert J-P, see Satou M 739
Feng AS, see Vater M, et al. 671
Fernald RD, see Allen EE 247
Follett BK, see Foster RG 519
Foster RG, Follett BK: The involvement of a rhodopsin-like photopigment in the photoperiodic response of the Japanese quail 519
French AS, see Watts RE 657
Fukushi T: Visual learning in walking blowflies, *Lucilia cuprina* 771
Gaillard F: Binocularly driven neurons in the rostral part of the frog optic tectum 47
Gleich O, see Manley GA, et al. 161
Greggers U, see Menzel R 311
Hackbarth H, see Schnitzler H-U, et al. 39
Haerter UL, see Wetzel DM, et al. 749
Hall J: Neuroanatomical and neurophysiological aspects of vibrational processing in the central nervous system of semi-terrestrial crabs. I. Vibration sensitive interneurons in the fiddler crab, *Uca minax* 91
Hall J: Neuroanatomical and neurophysiological aspects of vibrational processing in the central nervous system of semi-terrestrial crabs. II. Comparative anatomical and physiological aspects of stimulus processing 105
Haragashira M, see Tatsumi H, et al. 509
Hartman HB: Tension receptors on the closer muscle apodeme in the walking legs of the blue crab, *Callinectes sapidus* 355
Heilgenberg H, see Breer H 343
Heilmann U, see Schnitzler H-U, et al. 39
Henson OW Jr, Schuller G, Vater M: A comparative study of the physiological properties of the inner ear in Doppler shift compensating bats (*Rhinolophus rouxi* and *Pteronotus parnellii*) 587
Herbert H, see Schnitzler H-U, et al. 39
Hidaka I, see Kiyohara S, et al. 705
Hisada M, see Takahata M 547
Hodgkiss JP: A study of pre- and postganglionic fibres in the intestinal nerve (Remak's nerve) of the chicken 383
Horiki H, see Shimada I, et al. 477
Horwitz J, see Crescitelli F, et al. 323
Hudson R, see Distel H 599
Hustert R, see Bräunig P 73, 83
Johansen J, Kleinhaus AL: Properties of action potentials carried by divalent cations in identified leech neurons 491
Kelley DB, see Wetzel DM, et al. 749
Kihara A, Kuwasawa K, Yazawa T: Neural control of the cardio-arterial valves in an isopod crustacean, *Bathynomus doederleini*: Excitatory and inhibitory junctional potentials 529
Kirschfeld K, Vogt K: The contribution of different colour receptors to a motor output in the fly 417
Kirschvink JL, Walker MM, Chang S-B, Dizon AE, Peterson KA: Chains of single-domain magnetite particles in chinook salmon, *Oncorhynchus tshawytscha* 375
Kitoh J, see Kiyohara S, et al. 705
Kiyohara S, Hidaka I, Kitoh J, Yamashita S: Mechanical sensitivity of the facial nerve fibers innervating the anterior palate of the puffer, *Fugu pardalis*, and their central projection to the primary taste center 705
Kleinhaus AL, see Johansen J 491
Knight D, Leggett LMW: Six spectral sensitivity classes in crab visual interneurons 235
Koch UT, Brunner M: The velocity filter, a system for recording and on line decomposition of complex extracellular spike trains by analog computing 823
Kössl M, Vater M: The cochlear frequency map of the mustache bat, *Pteronotus parnellii* 687
Krenz WD, Reichert H: Lateralized inhibitory input to an identified nonspiking local interneuron in the crayfish mechanosensory system 499
Kurokawa M, Kuwasawa K: Multimodal motor-innervation of the gill of the aplysiid gastropods, *Aplysia kurodai* and *Aplysia juliana* 483
Kuwasawa K, see Kihara A, et al. 529
Kuwasawa K, see Kurokawa M 483
Leggett LMW, see Knight D 235
Lehrer M, Wehner R, Srinivasan M: Visual scanning behaviour in honeybees 405
Lehrer M, see Srinivasan M 579
Leppelsack H-J, see Manley GA, et al. 161
Levine RB, Pak C, Linn D: The structure, function and metamorphic reorganization of somatotopically projecting sensory neurons in *Manduca sexta* larvae 1
Ligman SH, Brownell PH: Differential hormonal action of the bag cell neurons on the arterial system of *Aplysia* 31
Linn D, see Levine RB, et al. 1
Lnenicka GA, see Pahapill PA, et al. 461
Manley GA, Gleich O, Leppelsack H-J, Oeckinghaus H: Activity patterns of cochlear ganglion neurones in the starling 161
Matsushima T, see Satou M, et al. 717
McFall-Ngai M, see Crescitelli F, et al. 323
Meguro H, see Shimada I, et al. 477
Menzel R, Greggers U: Natural phototaxis and its relationship to colour vision in honeybees 311
Morton DB, Truman JW: Steroid regulation

Contents

Aicher B, see Elepfandt A, et al. 255
Allen EE, Fernald RD: Spectral sensitivity of the African cichlid fish, *Haplochromis burtoni* 247
Ammermüller J, Weiler R: S-neurons and not L-neurons are the source of GABAergic action in the ocellar retina 779
Ampleford EJ: Ecdysteroids influence the circadian system timing ecdysis in the insect *Rhodnius prolixus* (Hemiptera) 699
Atwood HL, see Pahapill PA, et al. 461
Barth FG, see Blickhan R 115
Bell CC, see Slesinger P 15
Berlind A: Endogenous burst-organizing potentials in two classes of neurons in the lobster cardiac ganglion respond differently to alterations in divalent ion concentration 845
Betz M, see Vater M, et al. 671
Bitterman ME, see Walker MM 67
Blest AD: Retinal mosaics of the principal eyes of jumping spiders (Salticidae) in some neotropical habitats: optical trade-offs between sizes and habitat illuminances 391
Blickhan R, Barth FG: Strains in the exoskeleton of spiders 115
Boppré M, Schneider D: Pyrrolizidine alkaloids quantitatively regulate both scent organ morphogenesis and pheromone biosynthesis in male *Creatonotos* moths (Lepidoptera: Arctiidae) 569
Borbély AA, see Tobler I 817
Bräunig P, Hustert R: Actions and interactions of proprioceptors of the locust hind leg coxo-trochanteral joint. I. Afferent responses in relation to joint position and movement 73
Bräunig P, Hustert R: Actions and interactions of proprioceptors of the locust hind leg coxo-trochanteral joint. II. Influence on the motor system 83
Breckow J, Sippel M: Mechanics of the transduction of sound in the tympanal organ of adults and larvae of locusts 619
Breer H, Heilgenberg H: Neurochemistry of GABAergic activities in the central nervous system of *Locusta migratoria* 343
Brenowitz EA, see Rose GJ, et al. 763
Brownell PH, see Ligman SH 31
Brunner M, see Koch UT 823
Buiatti M, see Scapini F 433
Calford MB, Wise LZ, Pettigrew JD: Coding of sound location and frequency in the auditory midbrain of diurnal birds of prey, families Accipitridae and Falconidae 149
Capranica RR, see Rose GJ, et al. 763
Chang S-B, see Kirschvink JL, et al. 375
Crescitelli F, McFall-Ngai M, Horwitz J: The visual pigment sensitivity hypothesis: further evidence from fishes of varying habitats 323
Distel H, Hudson R: The contribution of the olfactory and tactile modalities to the nipple-search behaviour of newborn rabbits 599
Dizon AE, see Kirschvink JL, et al. 375
Doherty JA: Phonotaxis in cricket, *Gryllus bimaculatus* DeGeer: comparisons of choice and no-choice paradigms 279
Doolan JM, Pollack GS: Phonotactic specificity of the cricket *Teleogryllus oceanicus*: intensity-dependent selectivity for temporal parameters of the stimulus 223
Dyer FC: Mechanisms of dance orientation in the Asian honey bee *Apis florea* L. 183
Elepfandt A, Seiler B, Aicher B: Water wave frequency discrimination in the clawed frog, *Xenopus laevis* 255
Ewert J-P, see Satou M 739
Feng AS, see Vater M, et al. 671
Fernald RD, see Allen EE 247
Follett BK, see Foster RG 519
Foster RG, Follett BK: The involvement of a rhodopsin-like photopigment in the photoperiodic response of the Japanese quail 519
French AS, see Watts RE 657
Fukushi T: Visual learning in walking blowflies, *Lucilia cuprina* 771
Gaillard F: Binocularly driven neurons in the rostral part of the frog optic tectum 47
Gleich O, see Manley GA, et al. 161
Greggers U, see Menzel R 311
Hackbarth H, see Schnitzler H-U, et al. 39
Haerter UL, see Wetzel DM, et al. 749
Hall J: Neuroanatomical and neurophysiological aspects of vibrational processing in the central nervous system of semi-terrestrial crabs. I. Vibration sensitive interneurons in the fiddler crab, *Uca minax* 91
Hall J: Neuroanatomical and neurophysiological aspects of vibrational processing in the central nervous system of semi-terrestrial crabs. II. Comparative anatomical and physiological aspects of stimulus processing 105
Haragashira M, see Tatsumi H, et al. 509
Hartman HB: Tension receptors on the closer muscle apodeme in the walking legs of the blue crab, *Callinectes sapidus* 355
Heilgenberg H, see Breer H 343
Heilmann U, see Schnitzler H-U, et al. 39
Henson OW Jr, Schuller G, Vater M: A comparative study of the physiological properties of the inner ear in Doppler shift compensating bats (*Rhinolophus rouxi* and *Pteronotus parnellii*) 587
Herbert H, see Schnitzler H-U, et al. 39
Hidaka I, see Kiyohara S, et al. 705
Hisada M, see Takahata M 547
Hodgkiss JP: A study of pre- and postganglionic fibres in the intestinal nerve (Remak's nerve) of the chicken 383
Horiki H, see Shimada I, et al. 477
Horwitz J, see Crescitelli F, et al. 323
Hudson R, see Distel H 599
Hustert R, see Bräunig P 73, 83
Johansen J, Kleinhaus AL: Properties of action potentials carried by divalent cations in identified leech neurons 491
Kelley DB, see Wetzel DM, et al. 749
Kihara A, Kuwasawa K, Yazawa T: Neural control of the cardio-arterial valves in an isopod crustacean, *Bathynomus doederleini*: Excitatory and inhibitory junctional potentials 529
Kirschfeld K, Vogt K: The contribution of different colour receptors to a motor output in the fly 417
Kirschvink JL, Walker MM, Chang S-B, Dizon AE, Peterson KA: Chains of single-domain magnetite particles in chinook salmon, *Oncorhynchus tshawytscha* 375
Kitoh J, see Kiyohara S, et al. 705
Kiyohara S, Hidaka I, Kitoh J, Yamashita S: Mechanical sensitivity of the facial nerve fibers innervating the anterior palate of the puffer, *Fugu pardalis*, and their central projection to the primary taste center 705
Kleinhaus AL, see Johansen J 491
Knight D, Leggett LMW: Six spectral sensitivity classes in crab visual interneurons 235
Koch UT, Brunner M: The velocity filter, a system for recording and on line decomposition of complex extracellular spike trains by analog computing 823
Kössl M, Vater M: The cochlear frequency map of the mustache bat, *Pteronotus parnellii* 687
Krenz WD, Reichert H: Lateralized inhibitory input to an identified nonspiking local interneuron in the crayfish mechanosensory system 499
Kurokawa M, Kuwasawa K: Multimodal motor-innervation of the gill of the aplysiid gastropods, *Aplysia kurodai* and *Aplysia juliana* 483
Kuwasawa K, see Kihara A, et al. 529
Kuwasawa K, see Kurokawa M 483
Leggett LMW, see Knight D 235
Lehrer M, Wehner R, Srinivasan M: Visual scanning behaviour in honeybees 405
Lehrer M, see Srinivasan M 579
Leppelsack H-J, see Manley GA, et al. 161
Levine RB, Pak C, Linn D: The structure, function and metamorphic reorganization of somatotopically projecting sensory neurons in *Manduca sexta* larvae 1
Ligman SH, Brownell PH: Differential hormonal action of the bag cell neurons on the arterial system of *Aplysia* 31
Linn D, see Levine RB, et al. 1
Lnenicka GA, see Pahapill PA, et al. 461
Manley GA, Gleich O, Leppelsack H-J, Oeckinghaus H: Activity patterns of cochlear ganglion neurones in the starling 161
Matsushima T, see Satou M, et al. 717
McFall-Ngai M, see Crescitelli F, et al. 323
Meguro H, see Shimada I, et al. 477
Menzel R, Greggers U: Natural phototaxis and its relationship to colour vision in honeybees 311
Morton DB, Truman JW: Steroid regulation

of the peptide-mediated increase in cyclic GMP in the nervous system of the hawkmoth, *Manduca sexta* 423
Münz H: Single unit activity in the peripheral lateral line system of the cichlid fish *Sarotherodon niloticus* L. 555
Nederstigt LJA, see van der Molen JN, et al. 211
Oeckinghaus H: Modulation of activity in starling cochlear ganglion units by middle-ear muscle contractions, perilymph movements and lagena stimuli 643
Oeckinghaus H, see Manley GA, et al. 161
Ohrui H, see Shimada I, et al. 477
O'Neill WE: Responses to pure tones and linear FM components of the CF–FM biosonar signal by single units in the inferior colliculus of the mustached bat 797
Pahapill PA, Lnenicka GA, Atwood HL: Asymmetry of motor impulses and neuromuscular synapses produced in crayfish claws by unilateral immobilization 461
Pak C, see Levine RB, et al. 1
Peterson KA, see Kirschvink JL, et al. 375
Pettigrew JD, see Calford MB, et al. 149
Pollack GS, see Doolan JM 223
Quinn WG, see Tully T 263
Reichert H, see Krenz WD 499
Römer H, see Ronacher B 631
Ronacher B, Römer H: Spike synchronization of tympanic receptor fibres in a grasshopper (*Chorthippus biguttulus* L., Acrididae). A possible mechanism for detection of short gaps in model songs 631
Rose GJ, Brenowitz EA, Capranica RR: Species specificity and temperature dependency of temporal processing by the auditory midbrain of two species of treefrogs 763
Rovainen CM: Respiratory bursts at the midline of the rostral medulla of the lamprey 303
Sandeman DC: Crayfish antennae as tactile organs: their mobility and the responses of their proprioceptors to displacement 363
Sandeman DC, see Zeil J, et al. 607
Sandeman R, see Zeil J, et al. 607
Satou M, Ewert J-P: The antidromic activation of tectal neurons by electrical stimuli applied to the caudal medulla oblongata in the toad, *Bufo bufo* L. 739
Satou M, Matsushima T, Takeuchi H, Ueda K: Tongue-muscle-controlling motoneurons in the Japanese toad: topography, morphology and neuronal pathways from the 'snapping-evoking area' in the optic tectum 717
Scapini F, Buiatti M: Inheritance of solar direction finding in sandhoppers. III. Progeny tests 433
Schäfer HJ, Schmidt U: Ontogenetic development of neural responses in the olfactory bulb of laboratory mice 789
Schmidt U, see Schäfer HJ 789
Schneider D, see Boppré M 569
Schnitzler H-U, Hackbarth H, Heilmann U, Herbert H: Echolocation behavior of rufous horseshoe bats hunting for insects in the flycatcher-style 39
Schuller G, see Henson OW Jr, et al. 587
Seiler B, see Elepfandt A, et al. 255
Seitz G, see Weyrauther E 667
Semm P, see Zeise ML 23
Shimada I, Horiki H, Ohrui H, Meguro H: Taste response to 2,5-anhydro-D-hexitols; rigid stereospecificity of the furanose site in the sugar receptor of the flesh fly 477
Sippel M, see Breckow J 619
Slesinger P, Bell CC: Primary afferent fibers conduct impulses in both directions under physiological stimulus conditions 15
Srinivasan M, Lehrer M: Temporal resolution of colour vision in the honeybee 579
Srinivasan M, see Lehrer M, et al. 405
Stephens RE, see Stommel EW 441, 451
Stommel EW, Stephens RE: Calcium-dependent phosphatidylinositol phosphorylation in lamellibranch gill lateral cilia 441
Stommel EW, Stephens RE: Cyclic AMP and calcium in the differential control of *Mytilus* gill cilia 451
Suzuki R, see Tatsumi H, et al. 509
Takahata M, Hisada M: Interactions between the motor systems controlling uropod steering and abdominal posture in crayfish 547
Takeuchi H, see Satou M, et al. 717
Tateda H, see Umeda K 831
Tatsumi H, Haragashira M, Suzuki R: Interrelations between posture and locomotion in response to body rotation in crayfish 509
Teyke T: Collision with and avoidance of obstacles by blind cave fish *Anoptichthys jordani* (Characidae) 837
Thompson KJ: Organization of inputs to motoneurons during fictive respiration in the isolated lamprey brain 291
Tømmerås BÅ: Specialization of the olfactory receptor cells in the bark beetle *Ips typographus* and its predator *Thanasimus formicarius* to bark beetle pheromones and host tree volatiles 335
Tobler I, Borbély AA: Effect of rest deprivation on motor activity of fish 817
Truman JW, see Morton DB 423
Tully T, Quinn WG: Classical conditioning and retention in normal and mutant *Drosophila melanogaster* 263
Ueda K, see Satou M, et al. 717
Umeda K, Tateda H: Visual interneurons in the lobula complex of the fleshfly, *Boettcherisca peregrina* 831
Underwood H: Pineal melatonin rhythms in the lizard *Anolis carolinensis*: effects of light and temperature cycles 57
Valentinčič T: Behavioral study of chemoreception in the sea star *Marthasterias glacialis*: Structure-activity relationships of lactic acid, amino acids, and acetylcholine 537
van der Molen JN, Nederstigt LJA, Veenman CL: Variability in blowfly taste responses 211
Vater M, Feng AS, Betz M: An HRP-study of the frequency-place map of the horseshoe bat cochlea: Morphological correlates of the sharp tuning to a narrow frequency band 671
Vater M, see Henson OW Jr, et al. 587
Vater M, see Kössl M 687
Veenman CL, see van der Molen JN, et al. 211
Vogt K, see Kirschfeld K 417
Walker MM, Bitterman ME: Conditioned responding to magnetic fields by honeybees 67
Walker MM, see Kirschvink JL, et al. 375
Walz B: Light-induced changes of extra- and intracellular potassium concentration in photoreceptors of the leech, *Hirudo medicinalis* 199
Watts RE, French AS: Sensory transduction in dorsal cutaneous mechanoreceptors of the frog, *Rana pipiens* 657
Wehner R, see Lehrer M, et al. 405
Weiler R, see Ammermüller J 779
Wetzel DM, Haerter UL, Kelley DB: A proposed neural pathway for vocalization in South African clawed frogs, *Xenopus laevis* 749
Weyrauther E, Seitz G: Mobility and electric charge of screening pigment granules in the superposition eye of *Ephestia kuehniella* Z. 667
Wiltschko R, Wiltschko W: Pigeon homing: Does initial orientation include a 'preferred compass direction'? 469
Wiltschko W, see Wiltschko R 469
Wise LZ, see Calford MB, et al. 149
Yamashita S, see Kiyohara S, et al. 705
Yazawa T, see Kihara A, et al. 529
Zeil J, Sandeman R, Sandeman DC: Tactile localisation: the function of active antennal movements in the crayfish *Cherax destructor* 607
Zeise ML, Semm P: Melatonin lowers excitability of guinea pig hippocampal neurons in vitro 23

Indexed in Current Contents